

UNITED STATES OF AMERICA  
DEPARTMENT OF COMMERCE  
OFFICE OF THE ADMINISTRATOR OF CIVIL AERONAUTICS  
WASHINGTON 25, D. C.

TSO-C37

Effective  
November 1, 1955

TECHNICAL STANDARD ORDER

SUBJECT: VERY HIGH FREQUENCY (VHF) RADIO COMMUNICATION TRANSMITTING  
EQUIPMENT OPERATING WITHIN THE RADIO FREQUENCY RANGE OF  
118-132 MEGACYCLES (FOR AIR CARRIER AIRCRAFT)

INTRODUCTION

Under Section 601 of the Civil Aeronautics Act of 1938, as amended, and Parts 4a and 4b of the Civil Air Regulations issued pursuant thereto, the Administrator of Civil Aeronautics is authorized to adopt standards for VHF radio communication transmitting equipment intended for installation in civil air carrier aircraft. In adopting these standards, consideration has been given to existing Government and industry standards. This Technical Standard Order is intended to serve as a criterion by which VHF radio communication transmitting equipment may be determined to meet standards acceptable to the Civil Aeronautics Administration for installation in air carrier aircraft.

DIRECTIVE

Provision. Performance requirements as set forth in Radio Technical Commission for Aeronautics' paper entitled "Minimum Performance Standards Airborne Radio Communication Transmitting Equipment Operating Within the Radio Frequency Range of 118-132 Megacycles" (Paper 88-55/DO-65 dated May 9, 1955)\* with the exception hereinafter noted, are hereby established as minimum safety performance standards for VHF radio communication transmitting equipment intended for use in all air carrier aircraft.

Exception. The exception applies to Section 3.0, MINIMUM PERFORMANCE STANDARDS UNDER ENVIRONMENTAL TEST CONDITIONS. Radio Technical Commission for Aeronautics' Paper 100-54/DO-60, dated April 13, 1954,\*\* which is incorporated by reference in and thus is a part of Paper 88-55/DO-65, outlines environmental test procedures for equipment designed to operate under three different temperature ranges as specified therein under Procedures A, B, and C. Only VHF radio communication transmitting equipment which meets the operating requirements in the temperature range of -55°C to +55°C or -40°C to +55°C, whichever is applicable, as outlined under Procedure A or Procedure B of Paper 100-54/DO-60 is eligible under this order.

SPECIFIC INSTRUCTIONS

Marking. The following information shall be legibly and permanently marked on the equipment or attached thereto:

1. Name and address of company responsible for original compliance.
2. Equipment name.
3. Company's type or model designation.
4. Weight to the nearest pound and fraction thereof.
5. Serial number or date of manufacture.
6. TSO number.
7. Category of equipment.

Equipment which has been designed to operate over a temperature range of -55°C to +55°C as outlined under Procedure A of RTCA Paper 100-54/DO-60 shall be marked as Category A equipment. Equipment which has been designed to operate over a temperature range of -40°C to +55°C as outlined under Procedure B of this same paper shall be marked as Category B equipment.

\* Copies of paper are available from the RTCA Secretariat, Room 2036, T-5 Building, 16th and Constitution Avenue, N. W., Washington 25, D. C., at a cost of 30¢ per copy.

\*\* Copies of paper are available from the RTCA Secretariat, Room 2036, T-5 Building, 16th and Constitution Avenue, N. W., Washington 25, D. C., at a cost of 20¢ per copy.

Data Requirements. A party wishing to qualify equipment under this TSO shall furnish to the Civil Aeronautics Administration, Aircraft Engineering Division, Attention: W-238, Washington 25, D. C., ten copies each of the operating instructions, schematic diagrams, and the installation procedures for the equipment.

Effective Date. After November 1, 1955, this order will constitute the basis for CAA acceptance, equivalent to approval, of VHF radio communication transmitting equipment for use in civil air carrier aircraft of U. S. registry. The effective date applies only to new models of equipment and is not retroactive with respect to models previously type certificated.

Deviations. No deviations will be granted from the requirements of this order which establish the standards for reliability and performance of the equipment. Requests for deviations from other requirements of the order should be addressed to the Chief, Aircraft Engineering Division, Office of Aviation Safety, Civil Aeronautics Administration, Washington 25, D. C.

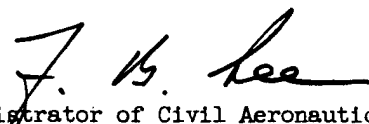
CONFORMANCE. A PARTY WISHING TO QUALIFY VHF RADIO COMMUNICATION TRANSMITTING EQUIPMENT SHALL FURNISH TO THE CIVIL AERONAUTICS ADMINISTRATION, AIRCRAFT ENGINEERING DIVISION, ATTENTION: W-238, WASHINGTON 25, D. C., A WRITTEN STATEMENT OF CONFORMANCE SIGNED BY HIM OR HIS RESPONSIBLE REPRESENTATIVE, SETTING FORTH THAT THE EQUIPMENT HE IS QUALIFYING UNDER THIS ORDER MEETS THE STANDARDS ESTABLISHED BY THIS ORDER. Immediately thereafter, distribution of the VHF radio communication transmitting equipment conforming with the terms of this order may be started and continued.

The prescribed identification on the VHF radio communication transmitting equipment does not relieve the aircraft manufacturer, owner, or operator of responsibility for the proper installation of this equipment in his aircraft, nor waive any of the requirements of the existing Civil Air Regulations.

If complaints of nonconformance with the requirements of this order are brought to the attention of the Civil Aeronautics Administration, and investigation indicates that such complaints are justified, the Administrator will take appropriate action to restrict the use of the product involved.

#### SOURCE OF PUBLICATION

Copies of this Technical Standard Order and other Technical Standard Orders may be obtained from the Civil Aeronautics Administration, Aviation Information Office, Washington 25, D. C.

  
Administrator of Civil Aeronautics